THE RECOVERY KERNEL

[illegible].

ΔFosB

[illegible].

[illegible], [illegible], [illegible] - [illegible] издание.

⚠ [illegible] - [illegible].

[illegible], 112 [illegible] findahelpline.com [illegible].

[illegible].

[illegible] издание [illegible], [illegible]. [illegible] ΔFosB [illegible] ([illegible], [illegible]). [illegible], [illegible], [illegible]: [illegible]-[illegible] '[illegible]' [illegible], [illegible], [illegible].

[illegible], [illegible]: ΔFosB [illegible]. [illegible], [illegible]-[illegible] [illegible]-[illegible]. [illegible], [illegible]. [illegible], [illegible]— [illegible], [illegible].

[illegible].

[illegible] '[illegible]' [illegible]:

- [illegible] — [illegible], [illegible], [illegible] ([illegible] ΔFosB [illegible]; [illegible]).
- [illegible] - [illegible].
- [illegible] - [illegible], [illegible], [illegible].
- [illegible]/[illegible] - [illegible]; [illegible], [illegible].
- [illegible]/[illegible] - [illegible].
- NOT ESTABLISHED — [illegible], [illegible].

1. ΔFosB [illegible]— [illegible].

[[illegible]] ([illegible]; [illegible]-[illegible] [illegible]).

ΔFosB [illegible] FOSB [illegible], [illegible] - [illegible] - [illegible],

[illegible]. [illegible]:

- [illegible] (splicing) [illegible]. [illegible], [illegible] (running through dopamine D1 [illegible], Activin/ALK4 [illegible], [illegible] SMAD3–PCBP1 [illegible]) FOSB [illegible]-mRNA [illegible]. [illegible] ΔFosB [illegible] C-[illegible], [illegible]-[illegible] FosB [illegible] ubiquitin-proteasome [illegible]. [illegible], ΔFosB [illegible], [illegible].
- [illegible]. [illegible] 2 (CK2), [illegible], [illegible] ΔFosB [illegible]—[illegible] 27—[illegible]. [illegible], [illegible]. [illegible] (phosphorylated) [illegible], [illegible] 35–37 kDa [illegible]. [illegible], [illegible].

[illegible].

[illegible]	[illegible].	[illegible]?	[illegible].	[illegible].
[illegible]-[illegible].	~50 kDa	[illegible]-[illegible].	[illegible]-[illegible] ubiquitin-proteasome [illegible].	[illegible] - [illegible].
[illegible] ΔFosB	~33 kDa	[illegible]-4/[illegible]-4 [illegible]-[illegible], [illegible] 27 [illegible].	[illegible], [illegible]-[illegible].	moderate - [illegible].
[illegible] ("[illegible]") ΔFosB.	~35–37 kDa	[illegible] 2 (CK2) [illegible] 27 (Ser27) [illegible], [illegible].	[illegible].	Persistent - [illegible], [illegible].

[illegible]: ΔFosB [illegible]— mRNA [illegible]. [illegible], [illegible] (phosphorylation) [illegible], [illegible]. [illegible], [illegible] (recovery) [illegible], [illegible].

2. □□□□□□□□□ □□□□□□ (Recovery Kernel) □□ □□□□□□□□□□□□□□ □□□□□□□□ ΔFosB □□ □□□□□□□.

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[illegible]	[illegible]?	[illegible].	[illegible]
	[illegible].	[illegible]; [illegible]/[illegible].	[illegible], [illegible]).
mRNA [illegible].	[illegible] (FOSB) [illegible] — [illegible].	~24–48 [illegible]	[illegible] ([illegible])
[illegible].	[illegible]-[illegible] ΔFosB [illegible], [illegible] ([illegible]) [illegible].	Weeks [illegible], [illegible]; [illegible], [illegible].	[illegible] ([illegible]).
[illegible] / [illegible].	[illegible] ([illegible]) [illegible].	[illegible] ΔFosB [illegible] ([illegible]).	[illegible].

[illegible]: ΔFosB [illegible], [illegible]. [illegible]—[illegible]—[illegible]. [illegible], [illegible].

4. [illegible].

[[illegible]] ([illegible])

[illegible] ΔFosB [illegible], [illegible]—[illegible]-[illegible], [illegible] ΔFosB [illegible].

- [illegible]—[illegible] c-fos—ΔFosB, [illegible] AP-1 [illegible] 1 (HDAC1) [illegible]. HDAC1 [illegible] (H3K9) [illegible], [illegible]. [illegible], [illegible] —[illegible], [illegible] ΔFosB [illegible].
- [illegible], [illegible]: CDK5, AMPA [illegible] GluA2 (GRIA2), [illegible] ARC. ΔFosB, BRG1 [illegible], [illegible] SWI/SNF [illegible]-[illegible]. BRG1 [illegible], [illegible], [illegible]-[illegible].

[illegible] "[illegible]" [illegible] ([illegible]) [illegible] (spines), [illegible] "[illegible]" [illegible]

5. [illegible] - [illegible]

[illegible] ΔFosB [illegible] "[illegible]" [illegible]-[illegible] ΔFosB [illegible] ([illegible]/GABA [illegible], [illegible]-[illegible]) [illegible]

[illegible] — ΔFosB [illegible]?

[illegible] "[illegible]" [illegible] "[illegible]" [illegible]

[illegible]	[illegible]	ΔFosB [illegible]	[illegible]
antipsychotics ([illegible] D2 [illegible])	[illegible]	[illegible] ΔFosB-[illegible] AP-1 [illegible]	[illegible] ([illegible])
[illegible] ([illegible])	[illegible] (Section 2) [illegible], DAT/NET [illegible]	[illegible] induction [illegible]	[illegible] — [illegible]
[illegible] ([illegible])	[illegible]-[illegible] ([illegible])	"[illegible]" [illegible]: [illegible] '[illegible]-[illegible]' (half-life) [illegible] '[illegible]-[illegible]' [illegible] (steady-state dosing) [illegible] '[illegible]-[illegible]' [illegible] (peak-trough cycling) [illegible] OAT ([illegible]) [illegible] '[illegible]' (stabilization) [illegible]	[illegible] - [illegible]

[illegible].	[illegible].	ΔFosB [illegible].	[illegible]
		[illegible].	
[illegible] ([illegible], [illegible]).	[illegible]-[illegible] (GABA-A mechanism) [illegible], [illegible]Section 2 [illegible].	[illegible]—[illegible] GABA-A [illegible]/[illegible], ΔFosB [illegible].	[illegible].
SSRIs / SNRIs	[illegible]/ [illegible] - [illegible].	[illegible] ΔFosB [illegible]. [illegible], [illegible]. [illegible]. [illegible] "[illegible]" [illegible] ([illegible]) [illegible], [illegible]. [illegible], [illegible] ΔFosB [illegible], [illegible]-[illegible].	[illegible] ([illegible]); [illegible] ([illegible], [illegible]).

[illegible], [illegible]. [illegible], [illegible], [illegible], [illegible], [illegible]. [illegible] ΔFosB [illegible]. [illegible], [illegible]. [illegible], [illegible], [illegible], [illegible] '[illegible]'[illegible].

[illegible].

[illegible] ΔFosB [illegible]. [illegible], [illegible] - [illegible]/GABA [illegible] MTHFR/MAOA [illegible] ([illegible], [illegible]) - [illegible]: ΔFosB [illegible].

[illegible].	[illegible].	Plausible Link to ΔFosB
P5P ([illegible]-5'-[illegible] — [illegible]6)	[illegible] ([illegible]-[illegible] 5-[illegible]) [illegible] ([illegible]) [illegible]. [illegible]6 [illegible].	[illegible], D1/PKA/CREB [illegible] "[illegible]" [illegible], [illegible] FOSB [illegible] ([illegible], [illegible]) - [illegible], [illegible]. [[illegible], [illegible]]

[illegible].	[illegible].	Plausible Link to ΔFosB
R5P ([illegible]-5'-[illegible] — [illegible]2 / [illegible])	[illegible], [illegible] MTHFR (C677T [illegible], [illegible] FAD [illegible]) [illegible] MAOA [illegible].	ΔFosB [illegible]— [illegible] MTHFR [illegible] MAOA [illegible], [illegible] ΔFosB [illegible], [illegible] ([illegible], [illegible]). [[illegible], [illegible]]
[illegible].	[illegible] ([illegible] NMDA [illegible] ([illegible]-[illegible]) [illegible]. NMDA [illegible]-[illegible] CaMKII [illegible].	CaMKII [illegible] CK2 [illegible], [illegible] ΔFosB [illegible] Ser27 [illegible] ([illegible]) [illegible]. ΔFosB [illegible]. [[illegible]]

[illegible]: [illegible], [illegible] ΔFosB [illegible]. [illegible], [illegible], GABA [illegible]-[illegible], [illegible].

[illegible]. [illegible] — [illegible].

ΔFosB [illegible], [illegible]. [illegible], [illegible]— [illegible], [illegible].

[illegible] 1 — FOSB [illegible], [illegible].

[illegible], [illegible] (nucleus accumbens) [illegible]— [illegible].

[illegible].	[illegible].	[illegible].	[illegible]
FOSB Ser27Ala (S27A)	[illegible] 27 [illegible] — CK2 [illegible].	[illegible]; [illegible]-[illegible], ΔFosB [illegible].	[illegible] ([illegible], [illegible]).
FOSB Ser27Glu (S27E) — [illegible].	[illegible], [illegible]— [illegible].	[illegible] CK2 [illegible]; [illegible].	[illegible] ([illegible], [illegible]).
FOSB [illegible]-[illegible]/[illegible]-[illegible] [illegible]-[illegible]	[illegible]1/[illegible]3 [illegible], [illegible]	[illegible]-[illegible] FosB [illegible], [illegible] degron [illegible]	[illegible] ([illegible])

[illegible].	[illegible] [illegible].	[illegible] [illegible].	[illegible]
[illegible].	(alternative splicing) [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible]. [illegible], [illegible] ΔFosB [illegible] [illegible] [illegible].	

[illegible] 2 — [illegible]-[illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible]-[illegible] [illegible] [illegible] [illegible], [illegible] ΔFosB [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] ΔFosB [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]—[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

[illegible]	[illegible].	[illegible] [illegible] [illegible].	[illegible]
CSNK2A1 / CSNK2B (CK2 [illegible] [illegible] [illegible] [illegible])	[illegible] [illegible] [illegible] [illegible] ΔFosB [illegible] Ser27 [illegible] [illegible].	[illegible] CK2 [illegible] ΔFosB [illegible] [illegible], [illegible] [illegible] [illegible]—[illegible] [illegible] [illegible] [illegible] [illegible].	[illegible] ([illegible], [illegible]).
PCBP1 / SMAD3	[illegible] ΔFosB [illegible] [illegible] [illegible] [illegible] (alternative splicing) [illegible] [illegible] [illegible] [illegible] [illegible] (nuclear complex) [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible]-[illegible] FosB [illegible] [illegible] [illegible], [illegible] [illegible] ΔFosB [illegible] [illegible] [illegible] [illegible].	[illegible] ([illegible], [illegible]).
ACVR1B (ALK4 [illegible])	SMAD3/PCBP1 [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] D1 [illegible] [illegible] [illegible].	[illegible] [illegible] [illegible] ΔFosB [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible].	[illegible] ([illegible], [illegible]).

[illegible] 3 — [illegible] [illegible]-[illegible] [illegible].

[illegible] [illegible] [illegible]-[illegible] [illegible]—[illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible], ΔFosB [illegible] [illegible]. ΔFosB [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible]. "[illegible] [illegible]" [illegible] [illegible] [illegible] [illegible]:

[illegible] [illegible] / [illegible]	[illegible].	[illegible].[illegible] **osB** [illegible] [illegible].	[illegible] - [illegible] [illegible].
DRD1 ([illegible] D1 [illegible]) [illegible].	D1 [illegible] PKA/CREB [illegible] [illegible] [illegible], [illegible] FOSB [illegible] [illegible].	[illegible]-[illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].	[illegible] — [illegible] [illegible] [illegible], [illegible] ΔFosB [illegible] [illegible] [illegible] [illegible].
CHRNB2 rs2072661	[illegible] [illegible] [illegible] [illegible] 3' [illegible] (UTR) [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] ΔFosB [illegible] [illegible] [illegible] [illegible].	[illegible] [illegible]: [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] / [illegible]	[illegible].	[illegible].[illegible] **osB** [illegible] [illegible] [illegible].	[illegible] - [illegible] [illegible].
			[illegible] [illegible], [illegible] ΔFosB [illegible] [illegible] [illegible] [illegible]; ΔFosB [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible].
DBH rs1541333	[illegible] [illegible]-[illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible].	[illegible]/[illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible], [illegible] ΔFosB [illegible] [illegible].	[illegible] - [illegible] [illegible] [illegible]: [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], ΔFosB [illegible].

[illegible] 6 — [illegible] [illegible] [illegible].

[illegible] (23andMe-[illegible] [illegible] [illegible], [illegible] [illegible] 'raw data' [illegible]) [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]—[illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] ΔFosB [illegible] [illegible] [illegible].

[illegible]	[illegible] [illegible] [illegible].	**ΔFosB** [illegible] [illegible] [illegible] [illegible].
COMT	[illegible]/[illegible] [illegible], [illegible] [illegible] [illegible]. Val/Val = [illegible]; Met/Met = [illegible].	[illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible]. [[illegible]/[illegible] [illegible]]
MTHFR	[illegible] [illegible] [illegible] [illegible] [illegible] [illegible].	ΔFosB [illegible] [illegible] [illegible] [illegible] [illegible]. [[illegible] [illegible]]
OPRM1 (A118G)	[illegible] [illegible]-[illegible] [illegible] [illegible].	[illegible]-[illegible] [illegible] [illegible]; [illegible] ΔFosB [illegible] [illegible]. [[illegible]]
GABRA2	GABA-A [illegible] [illegible]; [illegible] [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible] [illegible]. [[illegible]]
FAAH (C385A)	[illegible] [illegible]. '[illegible]' [illegible] [illegible] [illegible].	[illegible]-[illegible] [illegible] [illegible] [illegible]. [illegible] [illegible]. [[illegible]]
MAOA	[illegible], [illegible] [illegible] [illegible].	[illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible]. [[illegible]/[illegible] [illegible]]
SLC6A4 (5-HTTLPR)	[illegible] [illegible]; [illegible] [illegible] [illegible] [illegible].	[illegible] [illegible] ΔFosB [illegible] [illegible] [illegible] [illegible] [illegible]. [[illegible] [illegible] [illegible]]
ALDH2	[illegible] [illegible] [illegible].	[illegible] [illegible] [illegible], [illegible] ΔFosB [illegible]. [[illegible]/[illegible] [illegible],

[illegible]	[illegible].	ΔFosB [illegible].
	[illegible].	[illegible]]
CYP2D6, CYP3A4, CYP2C19, CYP1A2, CYP2C9, CYP2B6	[illegible] (liver enzymes) [illegible].	[illegible], [illegible] ΔFosB [illegible]. [illegible]-[illegible]. [[illegible]/[illegible], [illegible]].
HNMT	[illegible].	ΔFosB [illegible]. [[illegible]]

[illegible] ΔFosB [illegible]—[illegible]. [illegible], [illegible]. FOSB [illegible] Tier 2 [illegible] (CK2, PCBP1, SMAD3, ACVR1B) [illegible], [illegible] abstinence ([illegible]/[illegible]) [illegible], [illegible], [illegible] clearance ([illegible]) [illegible]. [illegible]—[illegible]. [illegible], [illegible]. [illegible], [illegible]. [illegible], [illegible].

[illegible] - [illegible]?

[illegible] (SNP arrays)

[illegible] ([illegible] 23andMe-[illegible]) [illegible]-[illegible]—[illegible] 3 [illegible] 4 [illegible]. [illegible] FOSB [illegible] (sequencing) [illegible], [illegible]. [illegible], [illegible] 1 [illegible] (mutations) [illegible], [illegible]. [illegible], [illegible]; [illegible].

[illegible] (WGBS).

[[illegible]] [illegible].

WGBS [illegible] ([illegible]) [illegible], [illegible]. [illegible] '[illegible]' (depth) [illegible] ([illegible] "WGBS 30x" [illegible], [illegible]) [illegible]. Sequencing.com [illegible] WGBS-30x [illegible], [illegible], [illegible].

[illegible] "[illegible]" [illegible] ([illegible]-[illegible]), [illegible]-[illegible]. [illegible]: ΔFosB-[illegible]

[illegible], [illegible] - [illegible] [illegible] HDAC1/BRG1 [illegible] - [illegible]. [illegible], [illegible]. [illegible] WGBS [illegible], [illegible]-[illegible]; [illegible]: [illegible] ΔFosB [illegible], [illegible].

WGBS [illegible]. [illegible], [illegible] "[illegible] ΔFosB [illegible]" [illegible]. [illegible], [illegible].

8. [illegible].

[[illegible]/[illegible]], [illegible].

[illegible]. [illegible], [illegible].

- [illegible]. [illegible] ΔFosB [illegible]—[illegible]. [illegible] (DAT [illegible], [illegible]-[illegible], GABA-A [illegible], [illegible]) [illegible]. [illegible] ΔFosB [illegible], [illegible], [illegible].
- [illegible]. [illegible] ΔFosB [illegible]. [illegible], [illegible]. [illegible]-[illegible] (Polydrug use) [illegible] ([illegible]) [illegible], [illegible]. [illegible].
- [illegible]. [illegible], [illegible]-[illegible] (polysubstance use disorder) [illegible], [illegible]-[illegible] (single-substance use disorder) [illegible], [illegible]. [illegible] ΔFosB-[illegible]— [illegible], [illegible].

[illegible]— '[illegible]' (Recovery Kernel) [illegible]. [illegible], [illegible] ([illegible]), [illegible], [illegible], [illegible].

[illegible] - '[illegible]' [illegible] ([illegible], [illegible], [illegible])

"[illegible]" (Chemsex) [illegible], [illegible] ("[illegible]") [illegible]/[illegible], [illegible]. [illegible]

[illegible], [illegible]. [illegible], [illegible].

[illegible].	ΔFosB [illegible] ([illegible])	[illegible].
[illegible].	[illegible].	[illegible] DAT/NET [illegible]. [illegible], [illegible].
Mephedrone / [illegible] ("[illegible]")	[illegible].	[illegible] (half-life) [illegible], [illegible] (induction) [illegible].
GHB / GBL	[illegible]-[illegible]	[illegible] ΔFosB [illegible]—[illegible], [illegible] (physical-dependence) [illegible] ([illegible]), [illegible].

[illegible], [illegible] ΔFosB [illegible]. [illegible], [illegible]— [illegible].

- [illegible] ([illegible]) — [illegible], [illegible].

[[illegible]] [illegible] ΔFosB [illegible], [illegible]. [illegible] (Pitchers et al., 2010, [illegible] ΔFosB [illegible]) [illegible] , [illegible] (VTA) [illegible] ΔFosB [illegible]. [illegible], [illegible]. [illegible]; [illegible].

- [illegible], [illegible] ([illegible]) [illegible]. [illegible], [illegible]. [illegible], [illegible], [illegible]. [illegible], [illegible], [illegible].

GHB/GBL [illegible], [illegible] ΔFosB [illegible]: [illegible], [illegible] GABA [illegible]. [illegible], [illegible], [illegible] (intensive care) [illegible]. [illegible] GHB/GBL [illegible]. [illegible] - [illegible].

[illegible]: [illegible], [illegible], [illegible], [illegible]-[illegible] (PTSD) [illegible] ([illegible]) [illegible], [illegible]. [illegible], GHB/GBL [illegible], [illegible]. [illegible] ΔFosB [illegible], [illegible]. [illegible], [illegible].

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